Claude F. Meares, et Application No.: 09/671,953 Page 18

2

moiety covalently attached thereto.

## APPENDIX B PENDING CLAIMS

1	1. (Twice amended) A mutant antibody comprising a reactive site not present in		
2	the wild-type of said antibody and six complementarity determining regions (CDRs) that recognize a		
3	metal chelate or portions thereof, wherein said reactive site is in a position proximate to or within		
4	said complementarity-determining regions,		
5	wherein said reactive site is the mutation and,		
6	wherein said reactive site interacts with a reactive group selected from carboxyl		
7	groups, hydroxyl groups, haloalkyl groups, dienophile groups, aldehyde groups, ketone groups,		
8	sulfonyl halide groups, thiol groups, amine groups, sulfhydryl groups, alkene groups, and epoxide		
9	groups.		
1	2. The mutant antibody according to claim 1, wherein said reactive site is a side- chain of a naturally occurring or non-naturally occurring amino acid.		
1	3. The mutant antibody according to claim 2, wherein said reactive site is the		
2	-SH group of cysteine.		
1	10. (Once amended) A polypeptide comprising a peptide sequence according to		
2	SEQ. ID NO.:5 ( <b>FIG. 12</b> ).		
1	11. A polypeptide comprising a peptide sequence according to SEQ. ID NO.: 7		
2	(FIG. 14).		
1	14. (Twice amended) The mutant antibody according to claim 1, wherein said		
2	mutant antibody is a mutant of the antibody deposited as ATCC Deposit No. PTA-4696.		
1	15. The mutant antibody according to claim 14, wherein serine-95 of the light-		
2	chain is substituted by a cysteine residue.		
1	16. The mutant antibody according to claim 1, wherein said antibody is a		
2	bifunctional antibody further comprising a second complementarity-determining region that		
3	specifically binds to a cell-surface antigen.		
1	17 The mutant antibody according to claim 1 further comprising a targeting		

Claude F. Meares, et Application No.: 09/671,953 Page 19

1	18.	The mutant antibody according to claim 17, having the structure:
2		Ab-L-T
3	wherein,	
4	Ab re	epresents said antibody;
5	L is a	chemical bond or linking group; and
6	T is s	aid targeting moiety.
1	19.	The mutant antibody according to claim 17, wherein said targeting moiety is
2	an antibody that bind	ds specifically to a cell surface antigen.
1	20.	The mutant antibody according to claim 1, further comprising said metal
2	chelate bound to said	d complementarity-determining region, wherein said chelate comprises a
3	reactive functional g	group of complementary reactivity to said reactive site of said antibody.
1	21.	(Once amended) The mutant antibody according to claim 20, further
2	comprising a covale	nt bond formed by reaction of said reactive site of said antibody and said
3	reactive functional g	group of said chelate.
1	22.	(Once amended) The mutant antibody according to claim 20, wherein said
2	reactive group of sai	d chelate is an acrylamido moiety.
1	23.	The mutant antibody according to claim 1, wherein said metal chelate is a
2	polyaminocarboxyla	ate chelate of a metal ion selected from the group consisting of transition metal
3	ions and lanthanide	ions.
1	24.	A pharmaceutical composition comprising the mutant antibody according to
2	claim 17, and a phar	maceutically acceptable carrier.
1	25.	(Twice amended) A mutant antibody comprising a cysteine residue not
2	present in the wild-t	ype of said antibody and six complementarity determining regions (CDRs) that
3	recognize a metal ch	nelate or portions thereof, wherein said cysteine is in a position proximate to or
4	within said complem	nentarity-determining regions, wherein said cysteine residue is the mutation.

Claude F. Meares, et a Application No.: 09/671,953 Page 20

1	30. The antibody according to claim 25, wherein said antibody is a bifunctional
2	antibody further comprising a second complementarity-determining region that specifically binds to
3	a cell-surface antigen.
•	The most entitle de according to aloim 25 further comprising a targeting
1	31. The mutant antibody according to claim 25, further comprising a targeting
2	moiety covalently attached thereto.
1	32. The mutant antibody according to claim 31, having the structure:
2	Ab-L-T
3	wherein,
4	Ab represents said antibody;
5	L is a chemical bond or linking group that may contain one or more functional
6	groups; and
7	T is said targeting moiety
1	33. The mutant antibody according to claim 31, wherein said targeting moiety is a
2	member selected from the group consisting of antibodies and antibody fragments, each of which
3	bind specifically to a cell surface antigen.
1	34. The mutant antibody according to claim 25, further comprising said metal
2	chelate bound to said complementarity-determining region, wherein said chelate comprises a
3	reactive functional group of complementary reactivity to the -SH side-chain of said cysteine
4	residue.

10

1	35. The mutant antibody according to claim 34, further comprising a covalent			
2	bond formed by reaction of the -SH side-chain of cysteine and said reactive functional group of said			
3	chelate.			
1	36. The mutant antibody according to claim 35, wherein said reactive functional			
1	group of said chelate is an acrylamido moiety.			
2	group of said chefate is an acrylanido molety.			
1	37. The mutant antibody according to claim 25, wherein said metal chelate is a			
2	polyaminocarboxylate chelate of a metal ion selected from the group consisting of transition metal			
3	ions and lanthanide ions.			
1	38. A pharmaceutical composition comprising the mutant antibody according to			
1				
2	claim 31, and a pharmaceutically acceptable carrier.			
1	42. (Once amended) A mutant antibody comprising a reactive site not present in			
2	the wild-type of said antibody and six complementarity determining regions (CDRs) that specifically			
3	bind a metal chelate, wherein said reactive site is in a position proximate to or within said			
4	complementarity-determining regions,			
5	wherein said reactive site is the mutation and,			
6	wherein said reactive site interacts with a reactive group selected from carboxyl			
7	groups, hydroxyl groups, haloalkyl groups, dienophile groups, aldehyde groups, ketone groups,			
8	sulfonyl halide groups, thiol groups, amine groups, sulfhydryl groups, alkene groups, and epoxide			
9	groups.			
1	43. (Once amended) A mutant antibody comprising a reactive site not present in			
2	the wild-type of said antibody and six complementarity determining regions (CDRs) that recognize a			
3	metal chelate comprising a reactive group or portions thereof, wherein said reactive site is in a			
4	position proximate to or within said complementarity-determining region,			
5	wherein said reactive group has complementary reactivity to said reactive site of said			
6	antibody,			
7	wherein said reactive site is the mutation, and			
8	wherein said reactive group is selected from carboxyl groups, hydroxyl groups,			
9	haloalkyl groups, dienophile groups, aldehyde groups, ketone groups, sulfonyl halide groups, thiol			

groups, amine groups, sulfhydryl groups, alkene groups, and epoxide groups.

Claude F. Meares, et Application No.: 09/671,953 Page 22

(New) The mutant antibody according to claim 1, wherein said mutant 44. 1

2 antibody is a mutant of CHA255.